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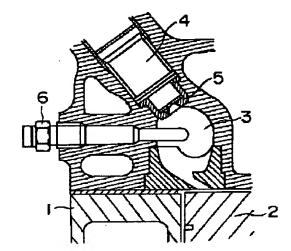
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TITLE

: MACHINE STRUCTURAL PARTS

COVERED WITH CERAMIC HEAT

INSULATION MATERIAL



ABSTRACT: PROBLEM TO BE SOLVED: To provide the machine structural parts in which the sufficient heat insulation effect can be easily demonstrated without degradation of metallic parts or the dimensional changes, the service life is long, and the reliability is high by combining the ceramic heat insulation material with the metallic parts.

> SOLUTION: A ceramic heat insulation material 5 is mounted so as to cover a part of or a whole of metallic parts. The ceramic heat insulation material is ≤5 W/mK in heat conductivity, and ≥800 K in thermal impact resistance, and smaller than the metallic parts in the coefficient of thermal expansion. The porous material mainly consisting of silicon nitride of ≥100 Mpa in bending strength and ≥30% in porosity is preferable as the ceramic heat insulation material.

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